

## ITEM 671 EROSION CONTROL MATS

### 671.01 Description

### 671.02 Materials

### 671.03 Construction

### 671.04 Maintenance

### 671.05 Method of Measurement

### 671.06 Basis of Payment

**671.01 Description.** This work consists of furnishing, placing, and maintaining Types A through I erosion control mats. This work also consists of furnishing, placing, and maintaining seeding and mulching when the seeding and mulching is to be held in place with erosion control mats.

**671.02 Materials.** Furnish materials conforming to:

Seed and Mulch.....	659
Lime and Fertilizer.....	659
Erosion Control Mats.....	712.11

If the mat type is not specifically itemized, furnish any mat type listed in 712.11.

Furnish staples consisting of 12-inch (0.3 m) No. 11 gage steel wire bent into narrow U-shape with the ends of the staples approximately 1 inch (25 mm) apart producing a 6 inch staple or furnish pins conforming 18 inch (450 mm) long, ¼ inch [4.5mm] in diameter, with attached 1½ inch (38 mm) washer. Drive staples until the staple is flush with the ground surface. Drive pins until the attached washer is flush with the ground surface.

For clay, shale, and other heavy soils, furnish 3-inch (75 mm) steel staples, No. 9 gage or thicker with points approximately 1 inch (25 mm) apart, as required by the Engineer.

**671.03 Construction.** Before placing any type of temporary erosion control mats, prepare the surface, apply the fertilizer and lime if specified, and seed as specified in Item 659 or as shown on the plans. Place the temporary erosion control mat in the locations shown on the plans.

**A. Types A, B, C, D, E, F, and I.** Construct erosion control mat Types A, B, C, D, E, F, and I as follows:

1. Within 48 hours after seeding and before placing the mat, evenly place mulch over the specified area at the following rates:

- a. For straw mulch, use 30 percent of the rate specified in 659.14.
- b. For wood fiber mulch, use 30 percent of the rate specified in 659.15.
- c. For compost, use the same rate as specified in 659.16.
- d. Asphalt emulsion tack or tackifier is not required.

2. Immediately after mulching, lay the mat strips flat, loose, parallel to the flow of water, and with the mat contacting the ground at all points. For mats placed in ditches, start the construction at the downstream end.

#### **671.04**

3. Where more than one strip is required to cover the area, overlap the strips at least 4 inches (100 mm). Overlap the ends at least 6 inches (150 mm) with the upgrade strip on top.

4. Place upgrade slots at the upgrade end of each strip of mat by placing a tight fold of the mat at least 6 inches (150 mm) vertically into the soil. Firmly tamp the soil against the end and staple the mat. If directed by the Engineer, bury other edges exposed to more than normal flow in a similar manner.

5. Place end slots between the ends of strips by placing a tight fold of the mat at least 6 inches (150 mm) vertically into the soil. Firmly tamp the soil and staple the mat.

6. Place check slots by placing a tight fold of the mat at least 6 inches (150 mm) vertically into the soil. Firmly tamp the soil and staple the mat. Space check slots so that one check slot or an end slot occurs within each 50 feet (15 m) of slope for slopes 3 to 1 or steeper.

7. Bury the edges of the mat where the mat abuts catch basins and other structures.

8. Secure the mat in place with staples driven vertically into the soil. Do not stretch or draw the mat taut during the stapling operation. Install three rows of staples for each strip of mat, with one row along each edge and one row alternately spaced in the middle. Space staples not more than 3 feet (1 m) apart in each row. Staple all upgrade slots, end slots and check slots across the width, with staples spaced not more than 6 inches (150 mm) apart.

9. After completing the mat installation, seed over top of the mat in areas that the Engineer identifies as disturbed. Use a seed mixture conforming to Item 659 at the rate of 1 pound per 1000 square feet (5 g/m<sup>2</sup>) or with a mixture or rate shown on the plans.

**B. Type G.** Construct erosion control mat Type G according to 671.03.A, with the following exceptions.

1. Do not use mulch under the mat.

2. Overlap edges and ends by 1 1/2 inches (40 mm).

3. Do not bury the upgrade end or top edge of each strip unless required by the Engineer due to special conditions in the field.

4. The Contractor may elect not to provide check slots. However upgrade slots and end slots will be furnished.

5. Place the mat in contact with the soil.

**C. Type H.** Construct erosion control mat Type H according to 671.03.A, with the following exceptions.

1. Clear the surface of rock, clods, or foreign material 1 1/2 inches (38 mm) or greater in size.

2. Do not use mulch under the mat.

**671.04 Maintenance.** Maintain the specified areas until all work in the Contract has been completed and the Engineer issues the final acceptance. Restore damaged areas to

the condition and grade existing just before placing the mat. Relime, refertilize, and reseed restored areas according to Item 659. Replace all damaged mats.

**671.05 Method of Measurement.** The City will measure Erosion Control Mat, Type \_\_\_ by the number of square yards (square meters) completed and accepted. The City will determine the area based on the surface area covered by the erosion control mat.

**671.06 Basis of Payment.** The City will not pay for maintenance as detailed in 671.04 that is required due to the Contractor's negligence, carelessness, or failure to install erosion controls.

If erosion control items in the Contract are properly placed according to the Contract Documents, the City will pay for maintenance detailed in 671.04 or according to 109.05.

The City will pay for liming and fertilizing of areas covered by the mats under Item 659. The City will not pay for the seeding and mulching performed under or over the mats.

The City will pay for accepted quantities at the contract prices as follows:

<b>Item</b>	<b>Unit</b>	<b>Description</b>
671	Square Yard (Square Meter)	Erosion Control Mat, Type ___
671	Square Yard (Square Meter)	Erosion Control Mat